

CAMBRIDGE PRIMARY Science

Activity Book

2



Jon Board and Alan Cross

Completely Cambridge
Cambridge resources
for
Cambridge qualifications

CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

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Information on this title: education.cambridge.org

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First published 2014

4th printing 2015

Printed by Multivista Global Ltd, India

ISBN 9781107611436 Paperback

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The publisher is grateful to the experienced teachers Mansoor Shoaib Shah, Lahore Grammar School, 55 Main, Gulberg, Lahore and Lynne Ransford for their careful reviewing of the content.

NOTICE TO TEACHERS

References to Activities contained in these resources are provided 'as is' and information provided is on the understanding that teachers and technicians shall undertake a thorough and appropriate risk assessment before undertaking any of the Activities listed. Cambridge University Press makes no warranties, representations or claims of any kind concerning the Activities. To the extent permitted by law, Cambridge University Press will not be liable for any loss, injury, claim, liability or damage of any kind resulting from the use of the Activities.

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Introduction

The *Cambridge Primary Science* series has been developed to match the Cambridge International Examinations Primary Science curriculum framework. It is a fun, flexible and easy to use course that gives both learners and teachers the support they need. In keeping with the aims of the curriculum itself, it encourages learners to be actively engaged with the content, and develop enquiry skills as well as subject knowledge.

This Activity Book for Stage 2 is designed to be used alongside the Learner's Book for the same stage, ISBN 978-1-107-61139-9.

In this book you will find a single-page exercise to accompany each topic presented in the Learner's Book. The exercises are designed to be completed as pen-and-paper exercises, and learners can work on them individually or in pairs or small groups. You can set the exercises as in-class work or homework.

There are different styles of exercise throughout to maintain interest and to suit different purposes. The main aims of the exercises in this book are:

- to consolidate the subject knowledge presented in the Learner's Book
- to encourage learners to apply the knowledge in new situations, thus developing their understanding
- to practise scientific language
- to develop scientific enquiry skills such as identifying simple patterns in evidence and interpreting results from investigations.

The answers to the exercises in this Activity Book are available in the Teacher's Resource for Stage 2, ISBN 978-1-107-61148-1. This resource also contains extensive guidance on all the topics, ideas for classroom activities, and guidance notes on all the activities presented in this Activity Book. You will also find a large collection of worksheets.

We hope you enjoy using this series.

With best wishes,
the Cambridge Primary Science team.

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Useful words

collect to find things and keep them together

Zhi **collected** ten different rock samples to look at.

complete to finish or make whole

Priya added a wire to **complete** the circuit

different not the same as something

Ade saw that the beetles were **different**.

fair test a test where you only change one thing and keep other things the same

Indu kept the height the same to make her test fair.

make to create or construct something

Rudo found he could **make** the circuit easily.

match to find something that is the same or similar, or that goes with something

Zola **matched** pictures of different rocks with their names

measure to find the size or amount of something, for example length or time

Hadya used some dominoes to **measure** the length of the shadow.

pictogram a chart that shows numbers or amounts of things as simple pictures

Luiz made a **pictogram** to show the different eye colours in the class.

predict to say what you think will happen

Ime was asked to **predict** how high the ball would bounce.

record to write, draw or photograph something that was seen or happened

Yuki wrote the measurements down to **record** what he found.

research to find out about something, for example by using books or the internet

Dina used the internet to **research** earthworms and what they eat.

safe

when there is no danger of getting hurt

Today we will learn how to stay **safe** with mains electricity

same

just like something else, not different

Kurt looked to see if the weather was the **same** as it was the day before.

symbol

a picture that stands for something else

Danny used a **symbol** of a cloud to record cloudy weather.

unfair test

a test which is not fair, for example, when more than one thing is changed

Jeet did not put the same amount of sugar in the cold water and the hot water so his test was **unfair**.

Exercise 1.1 A good place to live

In this exercise, you will think about what living things need.

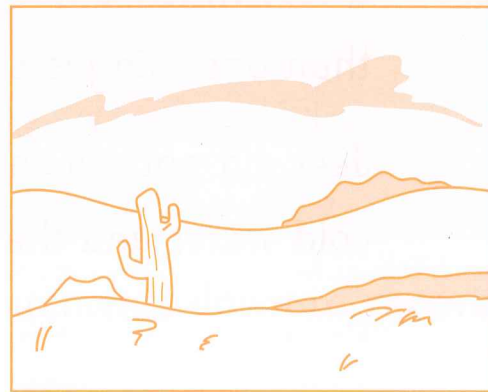
Look at the pictures. Do you think each place would be a good place for animals and plants to live?

Use these words to complete the sentences about each place.

a lot of difficult easy good hard not much



1 This would be a _____ place for animals and plants to live. There is _____ water. It would be _____ to find food. It would be _____ to find shelter.



2 This would be a _____ place for animals and plants to live. There is _____ water. It would be _____ to find food. It would be _____ to find shelter.

Exercise 1.2

How can we harm the environment?

In this exercise, you will think about how we can harm the environment.



Circle the things that could harm the environment in this picture.

Exercise 1.3 Our weather

In this exercise, you will make a weather diary.

Look outside at the weather. Fill in this weather diary for five days. Use these symbols.



cloudy



rainy



sunny



snowy



stormy

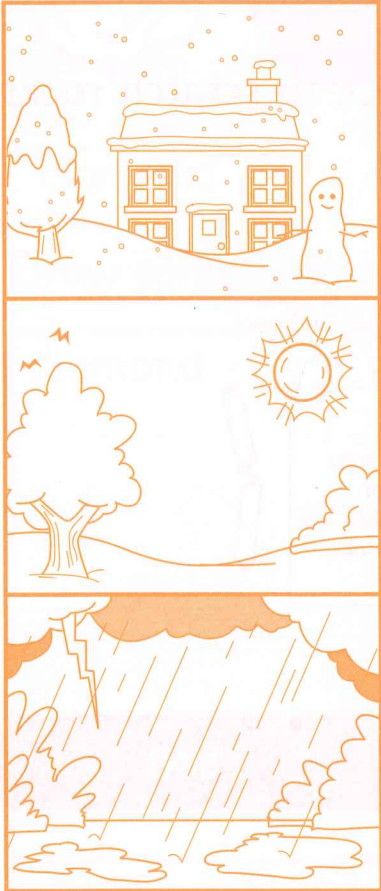
Day	Weather

What type of weather did you see the most?

Exercise 1.4 Extreme weather

In this exercise, you will show that you know what to wear in extreme weather.

1 Draw a line from each weather picture to the right clothes.



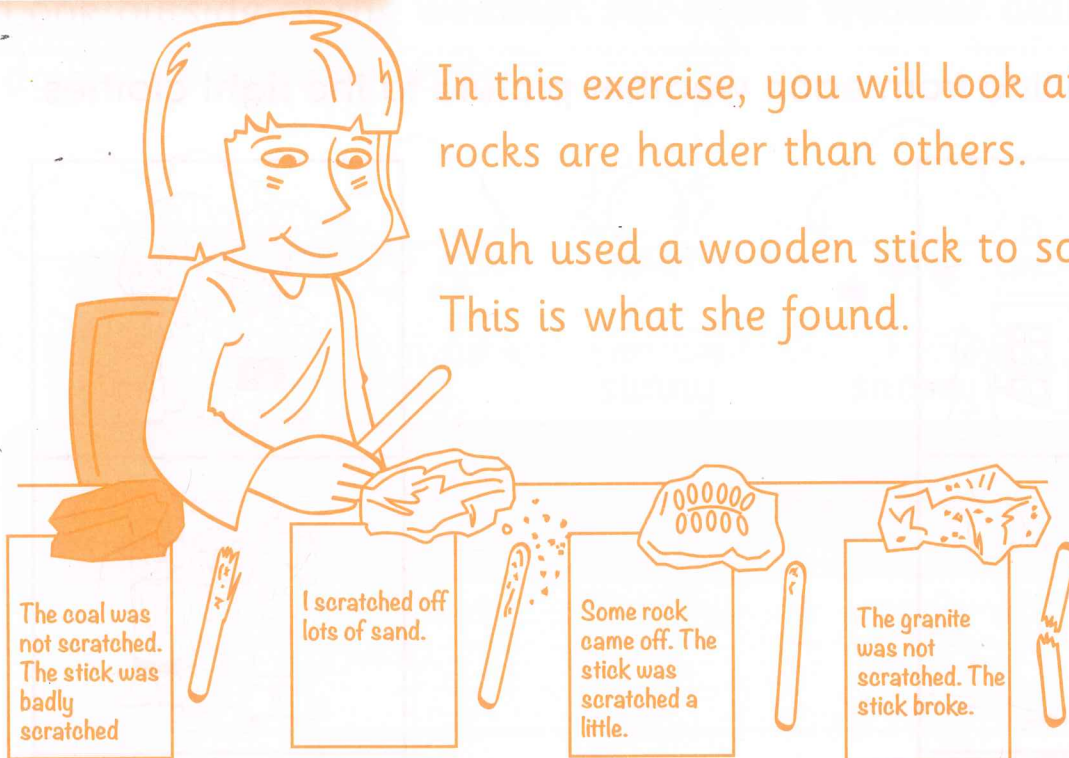
2 What is your favourite weather?

Use one of these words to complete the sentence.

cloudy rain snow sunny wind

My favourite weather is _____.

Exercise 2.1 Comparing rocks



In this exercise, you will look at how some rocks are harder than others.

Wah used a wooden stick to scratch rocks. This is what she found.

Complete the sentences. Use these words.

granite

hard

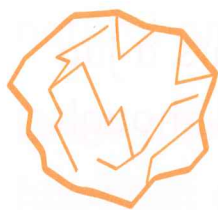
sandstone

soft

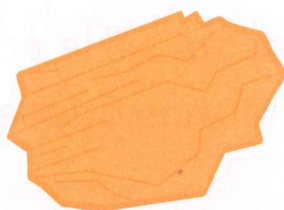
- 1 The softest rock was _____.
- 2 The hardest rock was _____.
- 3 The coal and granite damaged the wooden stick because they are _____.
- 4 The limestone and sandstone did not damage the wooden stick very much because they are _____.

Exercise 2.2 Uses of rocks

In this exercise, you will think about how rocks are used.



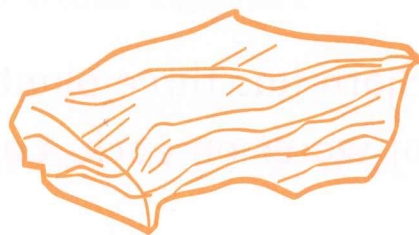
diamond



coal



chalk



sandstone

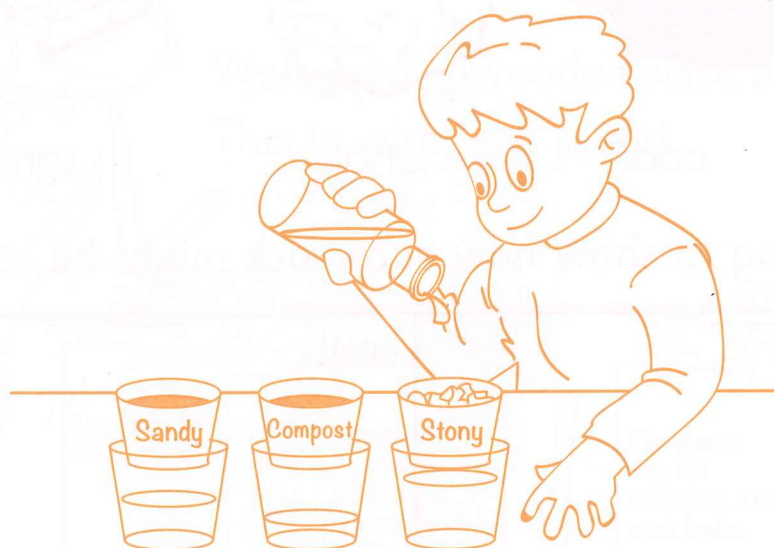
Draw something to show how each rock might be used.

<p>diamond</p>	<p>coal</p>
<p>chalk</p>	<p>sandstone</p>

Exercise 2.3 Soil

In this exercise, you will learn how rocks in soil help water drain through the soil.

Bjorn has three plant pots with different soils. He pours a jug of water on each. Look at the water that has dripped through.



- 1 Which soil has let the most water through? _____
- 2 Which soil is the wettest? _____
- 3 Complete these sentences. Use these words.

compost

few rocks

lots of rocks

stony

The _____ soil has let most water through because it has _____.

The _____ has let least water through because it has _____.

Exercise 2.4

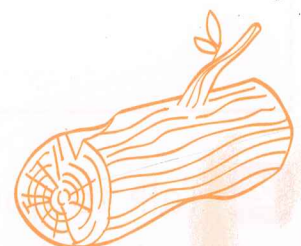
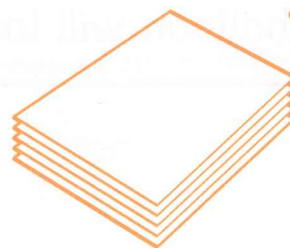
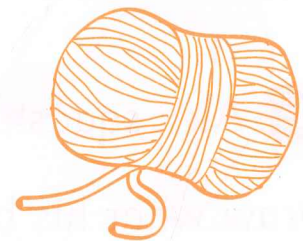
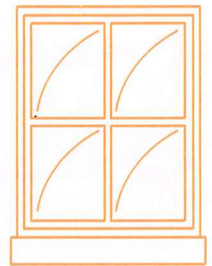
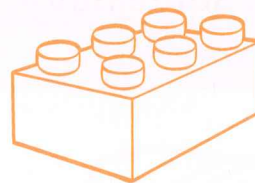
Natural and man-made materials

In this exercise, you will sort materials into those that are natural and those that are man-made.

Draw a line from each material to the right box. The first one has been done for you.

natural

man-made



Exercise 3.1 Balloons changing shape

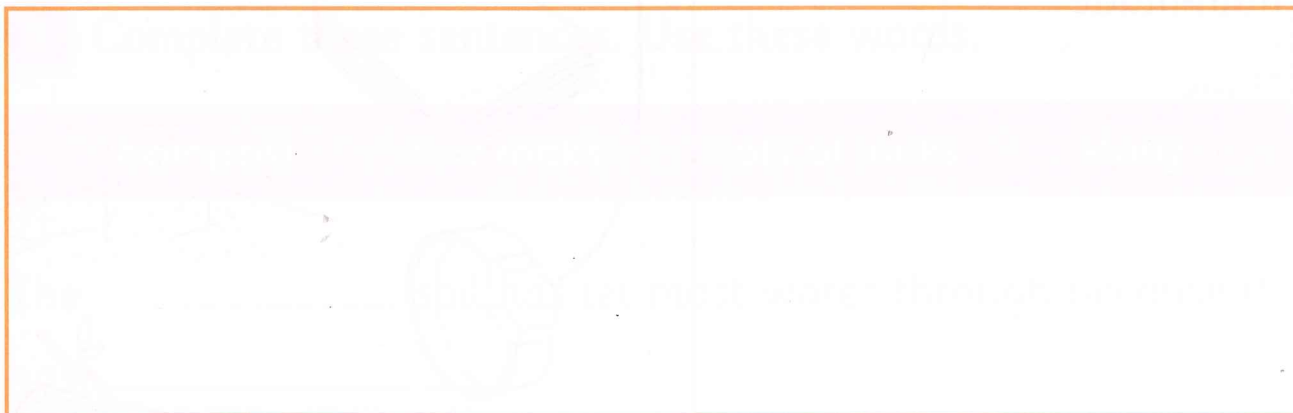
In this exercise, you will look at squashing balloons.

These boys are squashing balloons.



- 1 Alex squashes a balloon even harder than these boys.

Draw what his balloon will look like.



- 2 Talk to your friends. Say why the balloons in the pictures look different.

Exercise 3.2 Bending and twisting

In this exercise, you will think about bending and twisting materials.

What has happened to these materials?

Use these words.

bent

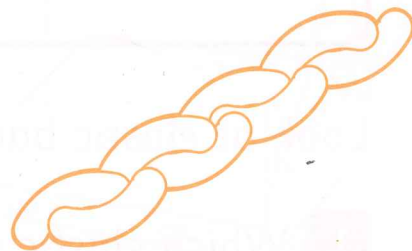
twisted



1 This towel has been _____.



2 This pipe has been _____.



3 This rope has been _____.



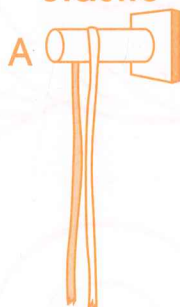

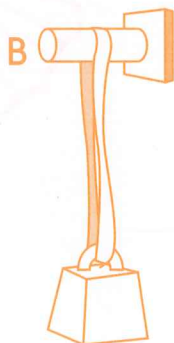





4 This metal has been _____ to make a hook.

Exercise 3.3 Stretching elastic

In this exercise, you can show you know about stretching elastic bands.

Paula and Selima stretched different elastic bands. They were very careful to keep the elastic away from their eyes.

This is what happened.

Very thin elastic	Medium elastic	Thin elastic	Thick elastic
<p>A</p>  	<p>B</p>  	<p>C</p>  	<p>D</p>  
broke	stretched a lot	broke	stretched a little

Look at elastic bands A, B, C and D.

- 1 Which elastic was strongest? _____
- 2 Which were weakest? _____
- 3 Which elastic bands could not be used to hold heavy boxes together? _____

Exercise 3.4 Heating and cooling

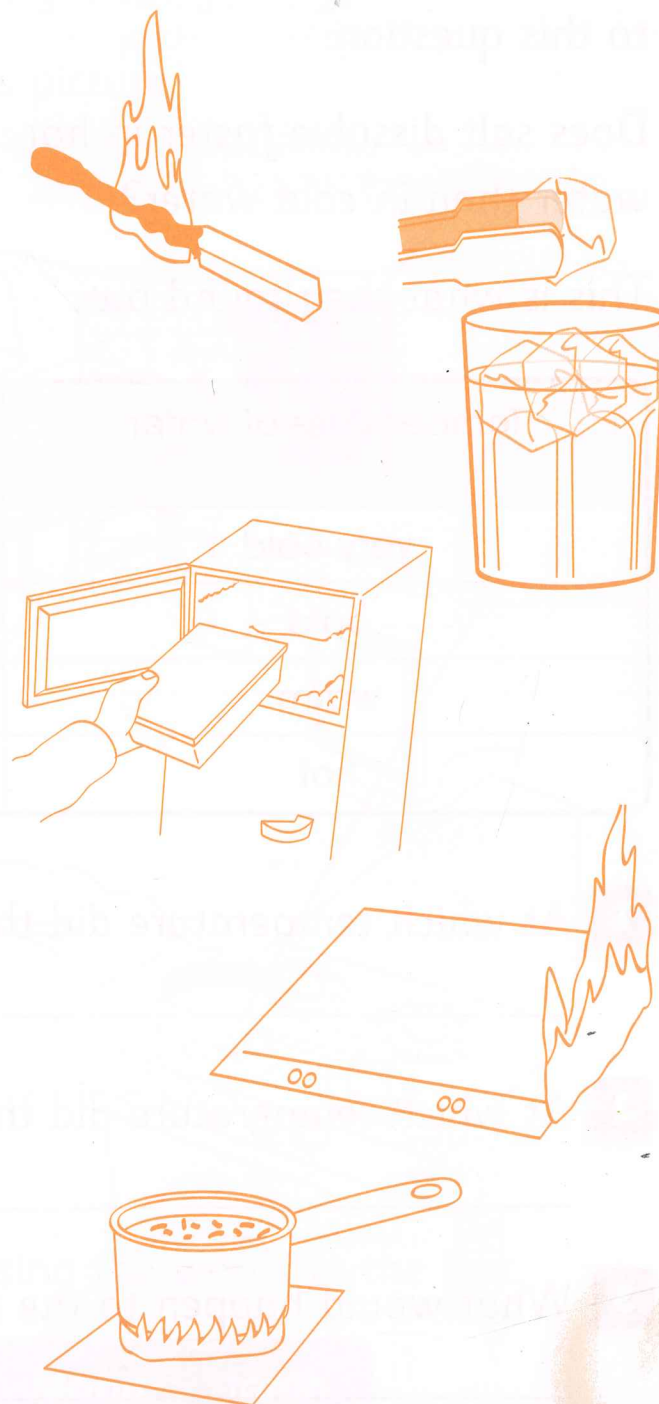
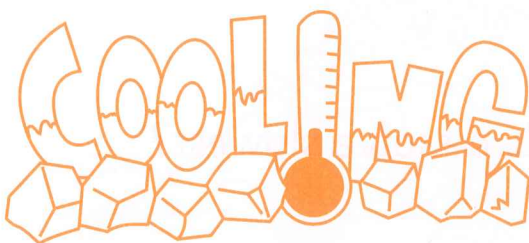
In this exercise, you will sort pictures to show how materials change when they are heated or cooled.

How are these materials being changed? Draw a line to the right box.

heating



cooling



Exercise 3.5 Salty water

This exercise will help you to understand about how salt dissolves in water.

Two children tried to find the answer to this question:

Does salt dissolve faster in hot water than in cold water?

This is what they found out.



Temperature of water	Time taken to dissolve salt in seconds
very cold	50
cold	40
warm	35
hot	20

1 At which temperature did the salt dissolve fastest?

2 At which temperature did the salt dissolve slowest?

3 What would happen to the salt in iced water?

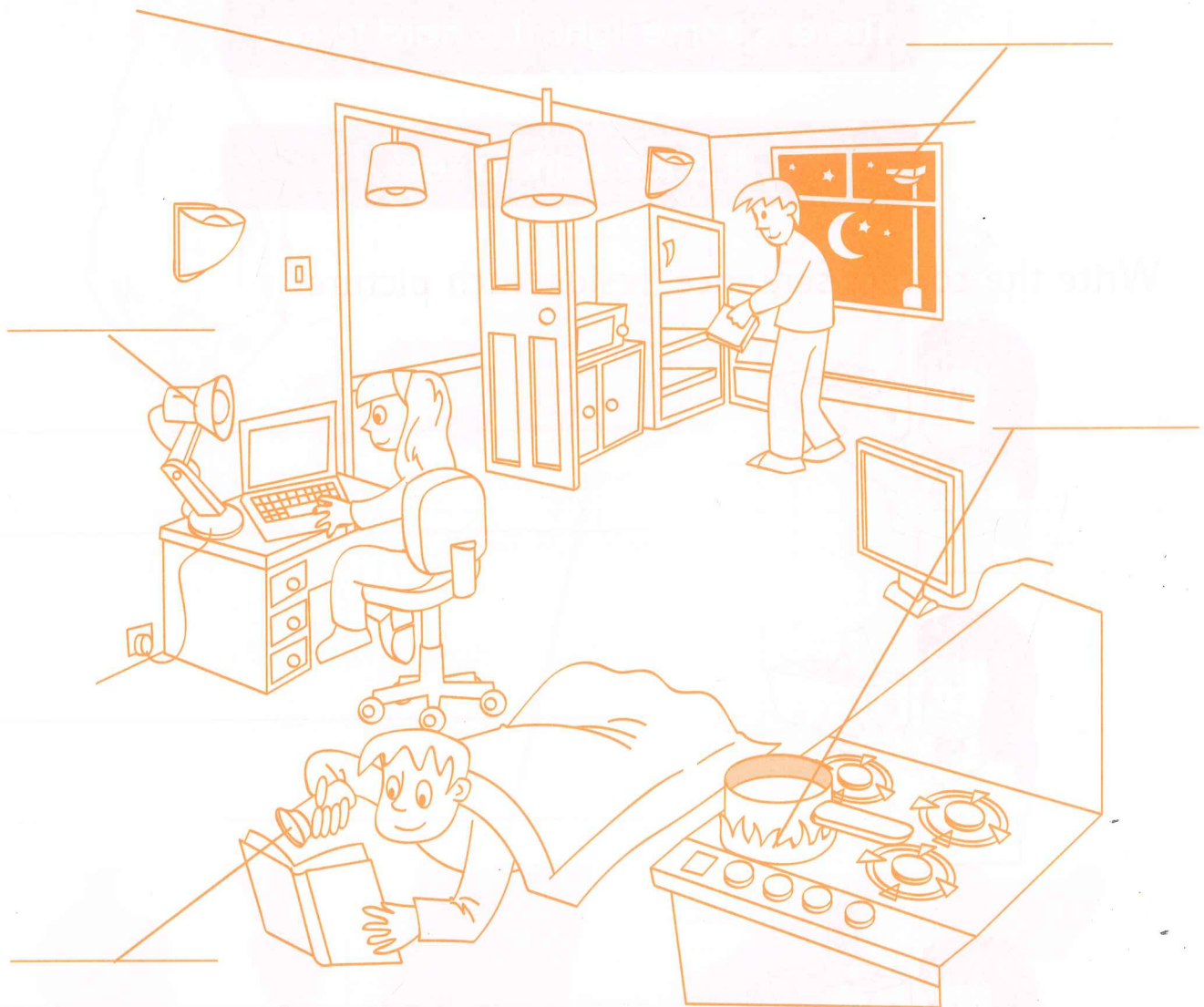
4

Light and dark

Exercise 4.1 Light sources

In this exercise, you will show that you can find light sources.

Colour in the light sources in this picture.



Label the things in the picture using the words in the box.

flame

lamp

Moon

torch

Exercise 4.2 Darkness

In this exercise, you will tell other people what happened.

Which of these sentences describes each picture?

It is light. She can see well.

There is some light. It is hard to see.

It is too dark to see.

Write the correct sentence beside each picture.





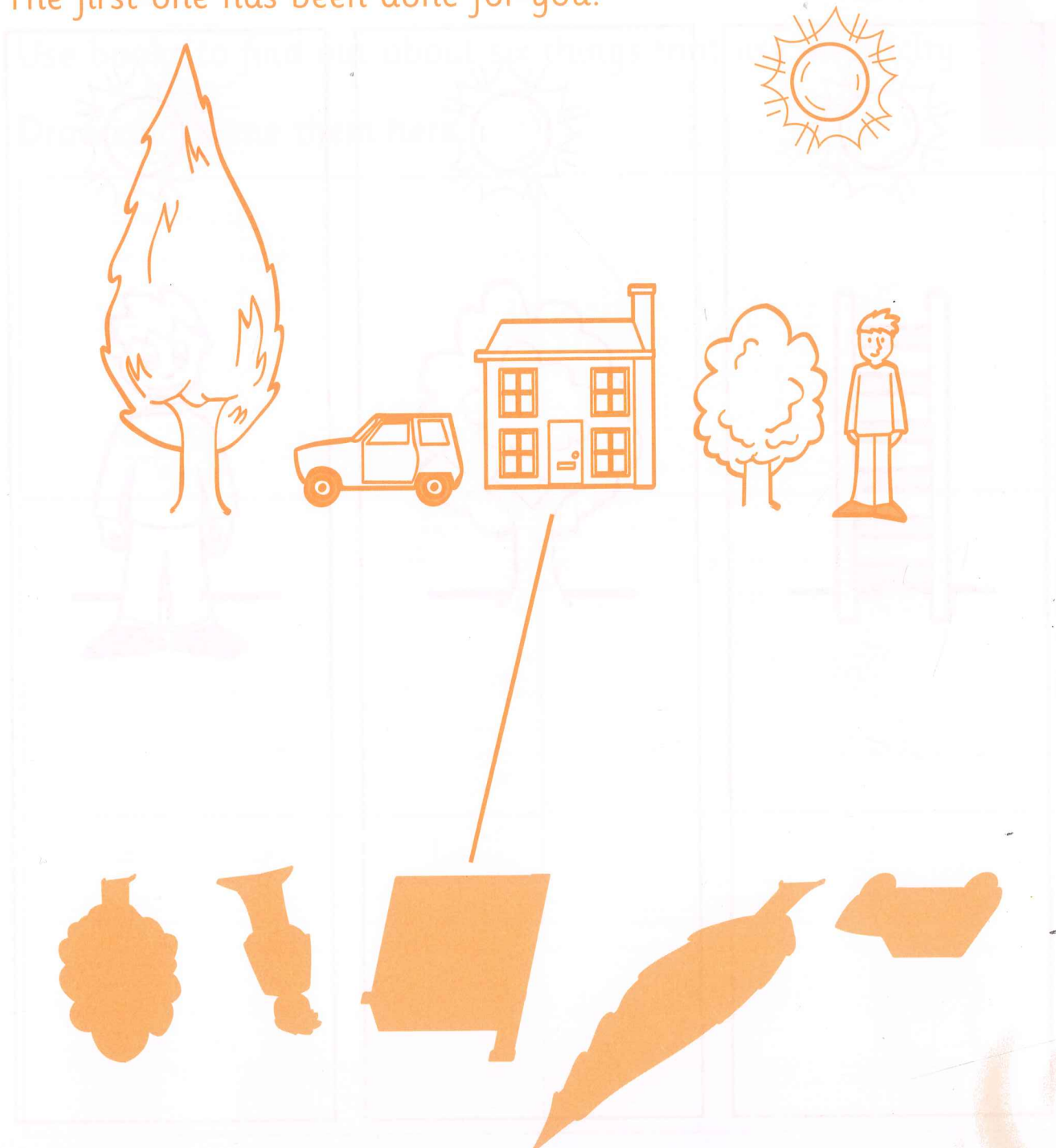


Exercise 4.3 Making shadows

In this exercise, you will show that you can identify shadows.

Match the shadows to the objects.

The first one has been done for you.

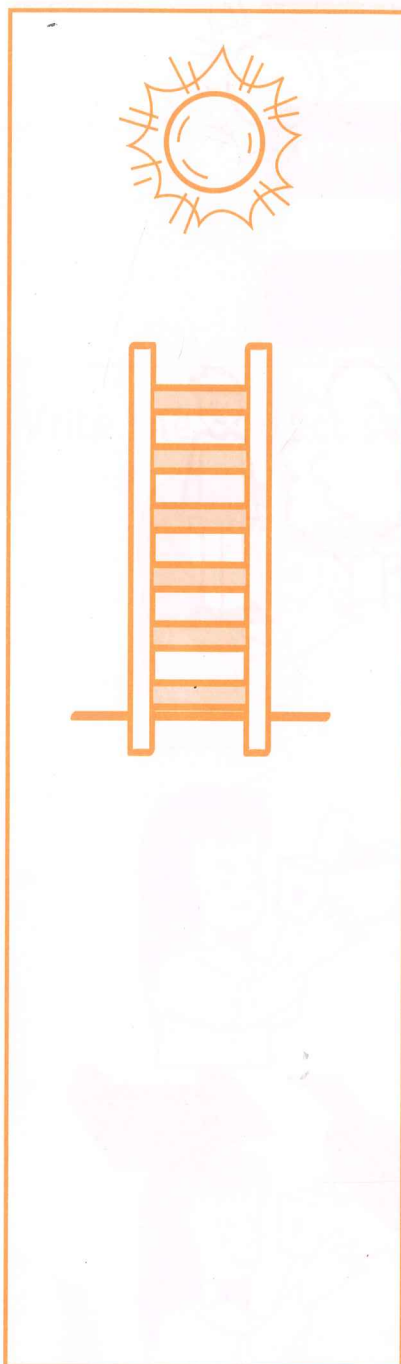


Exercise 4.4 Shadow shapes

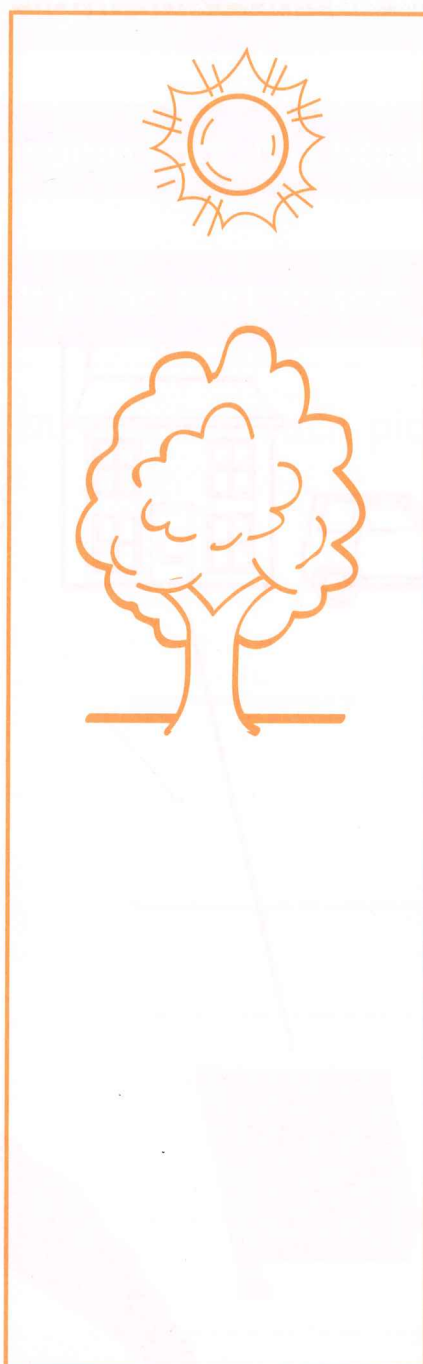
In this exercise, you will think about what shadows look like.

Draw the shadow of each object.

Ladder



Tree



Man

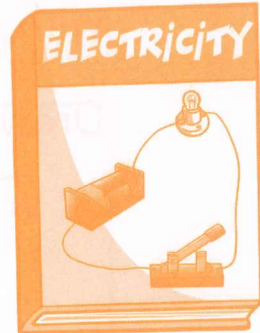


Exercise 5.1 Electricity around us

In this exercise, you will research electricity.

Use books to find out about six things that use electricity.

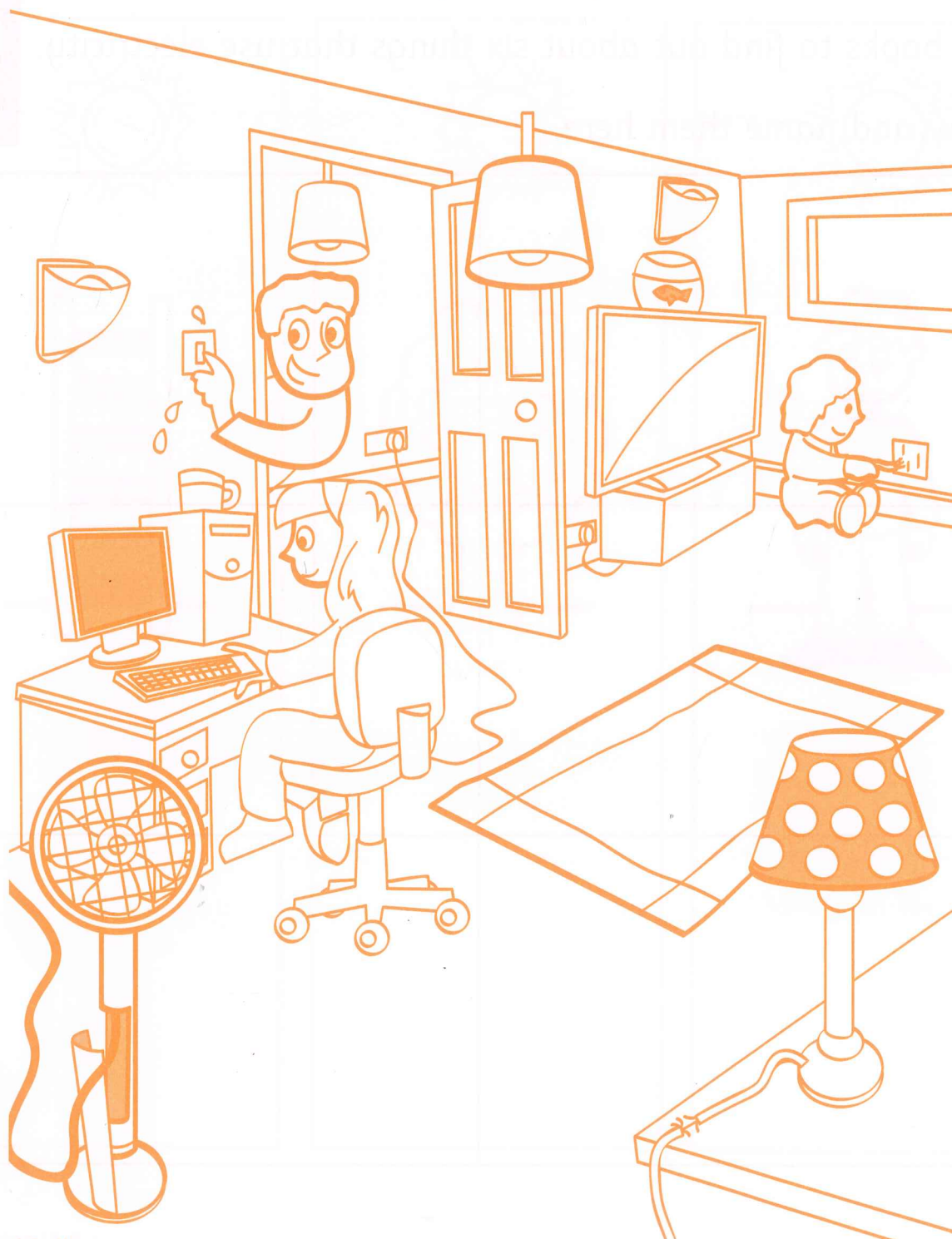
Draw and name them here.



Exercise 5.2 Electrical safety

In this exercise, you will show that you know how to stay safe with mains electricity.

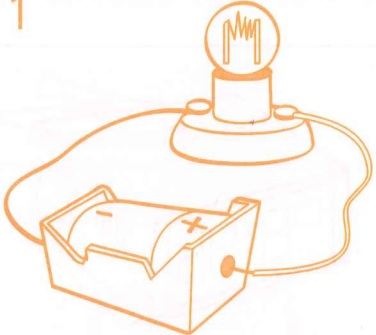
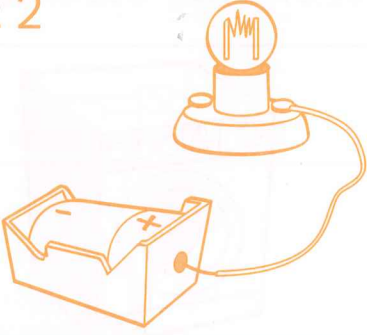
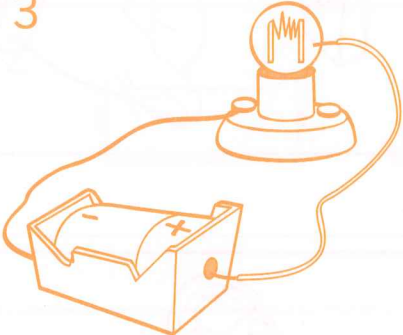
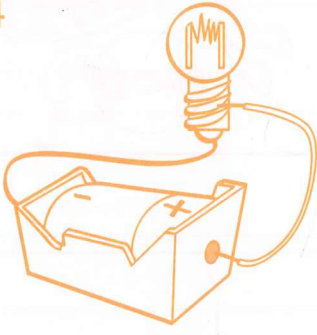
Draw a circle around the things in the picture that are not safe.



Exercise 5.3 Making a circuit

In this exercise, you will think about how a circuit works.

Write what happens in each circuit. Colour in the circuits that work.

<p>Circuit 1</p> 	<p>Circuit 2</p> 
<p>What happens?</p> <p>_____</p> <p>_____</p>	<p>What happens?</p> <p>_____</p> <p>_____</p>
<p>Circuit 3</p> 	<p>Circuit 4</p> 
<p>What happens?</p> <p>_____</p> <p>_____</p>	<p>What happens?</p> <p>_____</p> <p>_____</p>

You can use these sentences.

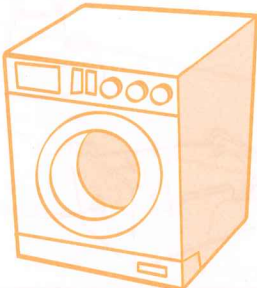
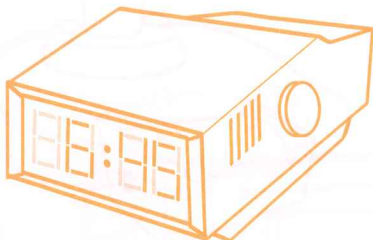
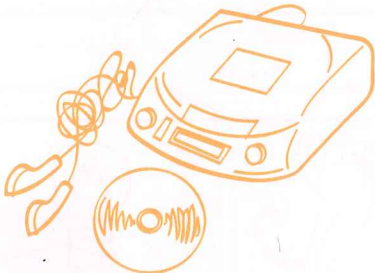
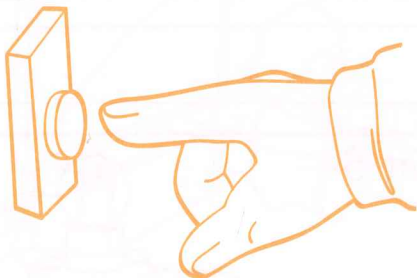
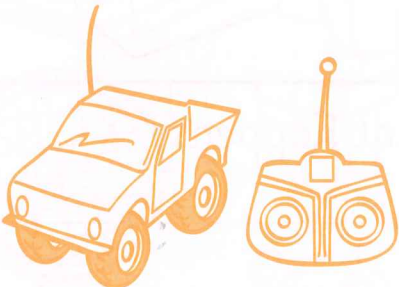

The bulb does light up.
 does not

Exercise 5.4 Using motors and buzzers

In this exercise, you will think about how motors and buzzers are used.

All of these use electricity. Do they use a motor or a buzzer?

The first one has been done for you.

	
motor	
	
	

Use these words.

buzzer

motor

Exercise 5.5 Switches

In this exercise, you will think about switches.

Draw wires to make each circuit.

Colour the circuits to show which light bulb is on.

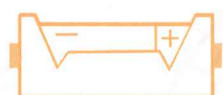


off



on

Circuit 1



Circuit 2



Use these sentences to say what happens in each circuit.

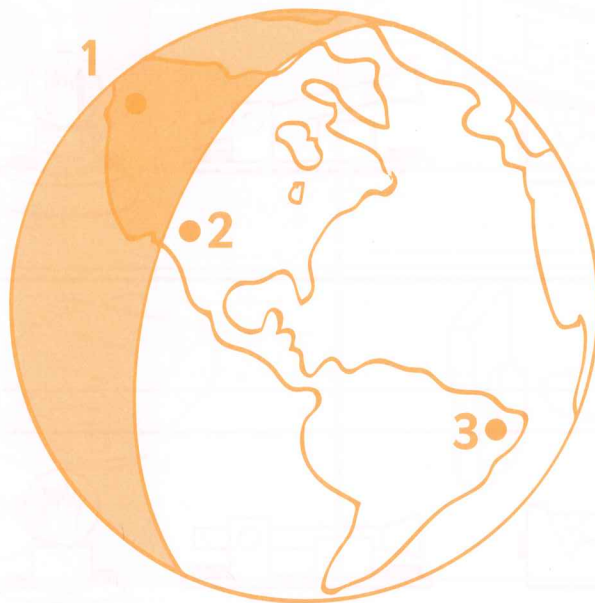
This circuit is

on.
off.

Exercise 6.1 Day and night

This exercise will check that you know about day and night.

Match the activities to the right places on the Earth.



having lunch



sleeping

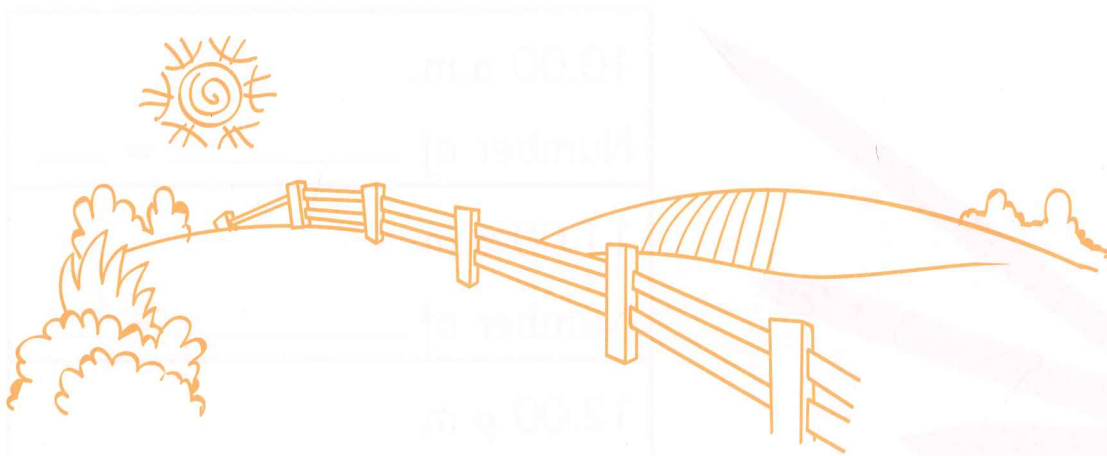


waking up

Exercise 6.2 Does the Sun move?

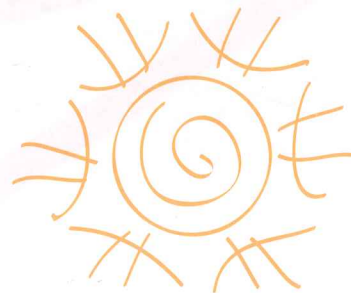
In this exercise, you will think about how the Sun and the Earth move.

The Sun looks as if it moves across the sky. This is the Sun in the morning. Draw how it will move during the day.



This picture shows the Sun and the Earth.

Draw an arrow to show how the Earth spins.



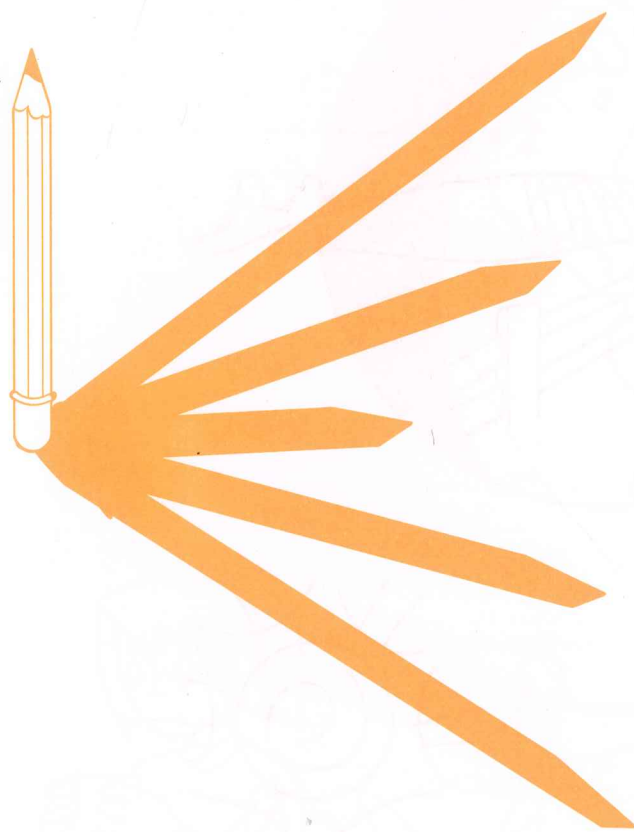
Exercise 6.3 Changing shadows

This exercise will check that you can measure carefully.

Measure the shadow of this pencil.

Use small plastic bricks, counters or coins. Make sure they are the same size or it will be unfair.

Write what you have measured with here. _____



10.00 a.m.

Number of _____ = _____

11.00 a.m.

Number of _____ = _____

12.00 p.m.

Number of _____ = _____

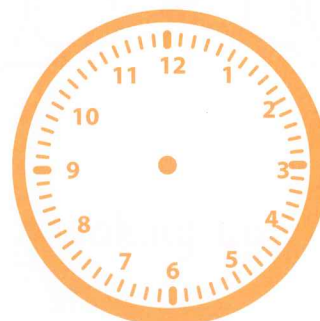
1.00 p.m.

Number of _____ = _____

2.00 p.m.

Number of _____ = _____

Draw the
time of the
shortest
shadow.



CAMBRIDGE PRIMARY Science

Activity Book

2

Cambridge Primary Science is a flexible, engaging course written specifically for the Cambridge Primary Science curriculum framework (Stages 1–6). The course offers plenty of teaching ideas to give flexibility, allowing teachers to select activities most appropriate to their classroom and pupils. An enquiry-based style of teaching and learning is stimulated, with the Scientific Enquiry objectives integrated throughout to encourage learning of these skills alongside the scientific concepts. The language level is carefully pitched to be accessible to EAL/ESL learners, with concepts illustrated through diagrams to allow visual understanding and learning.

The Activity Book contains:

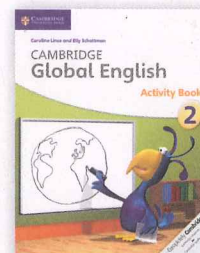
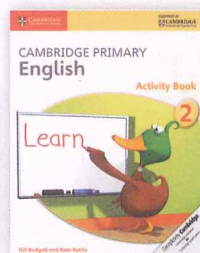
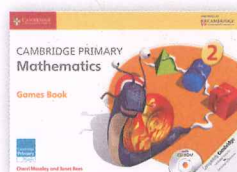
- one exercise to accompany each Topic in the Learner's Book
- exercises that can be completed in class or as homework
- exercises that are designed to consolidate understanding and deepen it by applying knowledge in new situations
- exercises that practise Scientific Enquiry skills.

Other components of Cambridge Primary Science 2:

Learner's Book 2 ISBN: 978-1-107-61139-9

Teacher's Resource 2 ISBN: 978-1-107-61148-1

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